

In the Specification

Please replace the paragraph spanning pages 2 and 3 with the following:

For example, in terms of hydrolysis resistance, polyurethane employing a polyether-type diol (hereinafter referred to as a polyether-based polyurethane) is outstanding, but it has the problem of poor light resistance. On the other hand, polyurethane employing a polyester diol (hereinafter referred to as a “a polyester-based polyurethane”) is excellent in its light resistance but it has poor hydrolysis resistance. Again, polyurethane employing a polycarbonate diol (hereinafter referred to as “a polycarbonate-based polyurethane”) has comparatively good light resistance and hydrolysis resistance, but it is physically hard and there are difficulties in obtaining products with a soft handle. To overcome the disadvantages of the polycarbonate-based polyurethane, there have been proposed polyurethanes employing polycarbonate diols of special structure, and artificial leathers employing these polyurethanes have been proposed.

For example, in JP-A-5-43647, there is a description to the effect that by using a polyurethane which employs a non-crystalline polycarbonate diol there is obtained a leather-like sheet which is outstanding in its wear resistance, softness and hydrolysis resistance, but even using a polyurethane employing such a non-crystalline polycarbonate there is in fact very little improvement in the softness and this remains a long way from target levels.

Furthermore, in JP-A-4-300368 there is described the use of a polyurethane which includes a polyester-based diol containing dicarboxylic acid units and C₅-C₆ alkanediol units derived from optionally methyl-substantially comprising carbonyl units and C₈ to C₁₀ alkanediol units derived from at least one type of alkanediol selected from the group comprising optionally methyl-substituted 1,8-octanediol and 1,9-nonanediol. In this way, an artificial leather is

obtained which combines both softness and durability but, even by this method, there is not obtained leather-like sheet having sufficient durability.

On page 3, please replace the first full paragraph with the following:

Moreover, if one attempts to soften the sheet-shaped material with a reduction in the amount of polyurethane applied, when the sheet is used for a prolonged period degradation of the polyurethane remains unavoidable and adequate durability is not obtained. In particular, the local ~~fatigue~~ failure resistance is unsatisfactory.

On page 3, please replace the fourth full paragraph with the following:

Disclosure of the Invention

The first objective of the present invention lies in providing a suede-like sheet which combines softness, good handle and elegant appearance, and which is outstanding in its durability (specifically in its local ~~fatigue~~ failure resistance, fraying resistance and pilling resistance).

Please replace the paragraph spanning pages 3 and 4 with the following:

The suede-like sheet of the present invention which achieves this objective has the following constitution. Specifically, it is a suede-like sheet which is characterized in that, in a suede-like sheet comprising primarily ultrafine fibre of no more than 0.3 dtex and polyurethane, said polyurethane employs polymer diol containing 30 wt% to 90 wt% polycarbonate diol, said sheet contains 20 wt% to 60 wt% of said polyurethane, the average nap length is 300 μm to 2000 μm , and the percentage retention of the local ~~fatigue~~ failure resistance before and after an accelerated ~~ageing~~ aging treatment is at least 50%.

On page 4, please replace the third and fourth full paragraphs with the following:

Brief Explanation of the Drawings

Figure 1 is an outline diagram showing the form of the local ~~fatigue~~ failure resistance tester in the present invention.

Figure 2 is an outline diagram showing schematically the local ~~fatigue~~ failure resistance test in the present invention.

On page 7, please replace the first full paragraph with the following:

Next, a nonwoven web is prepared using the aforesaid fibre. There are no particular restrictions in terms of nonwoven web type, but from the point of view of quality and handle it is preferred that it be a staple nonwoven web. As methods for obtaining a staple nonwoven web, there can be used methods employing a card or cross-lapper, or a random webber, or alternatively papermaking methods can be employed. Again, by entanglement of the nonwoven web obtained by these methods, using needle punching or by means of a water jet, so that it is combined with some other woven, knitted or nonwoven material, there is the beneficial effect of conferring a suitable degree of stretch on, and restricting the elongation of, the sheet material. There are no particular restrictions on the water jet or needle punching methods, and there can be employed known equipment and conditions but, in the case of needle punching suitable adjustment is required of the needle shape, punch number and punch depth, and in the case of water jet punching suitable adjustment is required of the jet hole shape, size and water jet pressure, according to the fibre fineness, strength and the mechanical characteristics and surface quality of the target product.

On page 8, please replace the second full paragraph with the following:

In conventional methods of production, in the case where a thin leather-like sheet is to be obtained there has been adopted a method in which there is initially produced a thick nonwoven web and, after application of the polyurethane, the nonwoven web then sliced in the thickness direction. However, in the case of the suede-like sheet obtained in this way, the staple fibre from which the nonwoven web is constructed is cut by the slicing, so that the average fibre length is considerably shortened and the fibre entanglement strength is lowered, with the result that only a leather-like sheet of low strength is obtained.

On page 9, please replace the first full paragraph with the following:

The present inventors have discovered that, in order to enhance the durability of the suede-like sheet, it is insufficient just to improve the polyurethane durability. However, by also improving the structure of the nonwoven web it becomes possible, for the first time, to achieve a high level of durability. The present invention is based on this discovery.

Please replace the paragraph spanning pages 9 and 10 with the following:

In bonding together the nonwoven material, there is firstly produced the nonwoven web and then, with two layers thereof superimposed, a bonding treatment is carried out. As the nonwoven material used in this bonding, there can be employed suitably-selected aforescribed nonwoven material. It is preferred that there be employed nonwoven material in which the fibre entanglement or fibre density of the nonwoven web prior to the bonding is as high as possible but, if it is too high, then the bonding strength at the time of the bonding-together is weakened with the result that, in the after-processing of the bonded nonwoven web, separation may occur between the nonwoven material layers and considerable problems arise. Furthermore, if the entanglement of the nonwoven web used in the bonding is too low, then while the nonwoven

bonding strength is raised there is a considerable lowering of the strength following slicing. Consequently, the nonwoven material used in such circumstances will be selected taking into account an overall balance of these factors. Now, here, there is described the case where typically two layers of nonwoven webs are bonded-together, but beneficial effects may in some cases be obtained by increasing the number of bonded layers, and the present invention does not exclude such cases.

On page 23, please replace the second full paragraph with the following:

~~Now, the~~ The average nap length referred to here is determined by taking a photograph at a magnification of 100x using an optical microscope, and then determining the average length of 50 randomly selected nap fibres.

Please replace the paragraph spanning pages 28 and 29 with the following:

(3) Local ~~fatigue~~ failure resistance retention and the ~~fatigue~~ failure resistance after an accelerated aging treatment

The local ~~fatigue~~ failure resistance was evaluated by the following method before and after an accelerated ~~ageing~~ aging treatment, and then the local ~~fatigue~~ failure resistance retention and the value of the ~~fatigue~~ failure resistance after the accelerated ~~ageing~~ aging were determined.

On page 29, please replace the first full paragraph with the following:

A. Local ~~fatigue~~ failure resistance

Measurement was carried out by the method described elsewhere in the Specification.

On page 36, please replace Table 1 with the following:

Table 1

		Examples										Comparative Examples			
		1	2	3	4	5	6	7	8	9	10	1	2	3	4
Fineness		0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1
Felt production method*	dx	2	2	1	1	1	1	1	1	1	1	2	1	1	1
Polycarbonate diol	type	PHC	PHC	PHC	PHC	PHC	PHC	PHC	PHC	PHC	PHC	PHC	PHC	PHC	PHC
	%	50	50	50	70	70	85	70	85	70	85	20	20	100	85
Other polymer diol	type	PNA	PNA	PNA	PTMG	PCL	PCL	PCL	PCL	PCL	PCL	PNA	PTMG	-	PCL
	%	50	50	50	30	30	15	30	15	30	15	80	80	-	15
Polyurethane content	%	35	35	35	25	25	25	25	25	25	25	35	25	25	25
Antistatic agent	%	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0
Silicone lubricant	%	0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0
Frictional electricity before buffing	V	+11	+13	+15	+16	+15	+14	+15	+14	+15	+14	+11	+9	+9	+7600
Average nap length	mm	659	1015	1098	1205	1134	988	1205	1134	988	1201	1302	154	154	220
Local footgave failure resistance retention	%	60	78	82	87	91	88	82	87	91	88	33	40	93	93
Footgave failure resistance after accelerated ageing	times	65	112	132	115	124	133	115	124	133	34	40	40	144	119
Dyeability index B/A		0.59	0.59	0.59	0.53	0.62	0.65	0.53	0.62	0.65	0.45	0.09	0.56	0.56	0.62
Wet-rubbing fastness	grade	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Weight loss on rubbing	mg	14	18	14	15	11	12	14	15	11	33	40	40	7	10

* Methods of felt production

1: Two thin layers of web were superimposed and then needle punching/polyurethane impregnation performed, after which slicing was carried out to produce two sheets of nonwoven material.

2: A thick web was subjected to needle punching, then impregnated with polyurethane, to produce one sheet of nonwoven